

## SEQUENCE LISTING

&lt;110&gt; Bednarik et al.

&lt;120&gt; Human Hypoxanthine-(Guanine) Phosphoribosyl Transferase-2

&lt;130&gt; PF138P1C1

&lt;150&gt; US 08/461,031

&lt;151&gt; 1995-06-05

&lt;150&gt; PCT/US94/11914

&lt;151&gt; 1994-10-19

&lt;160&gt; 11

&lt;170&gt; PatentIn version 3.1

&lt;210&gt; 1

&lt;211&gt; 1386

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (626)..(1264)

&lt;223&gt;

&lt;400&gt; 1

gattttttgt gatatcttct tcgggggggg ggggaaccta ttgtataaac gccaaccaac 60

cggccctttt ttgggtacctt ggccatttta cttggcccat tttggtaaaa tgttccttgc 120

cctgcgttaa tccccctgat tccttggtgg ataaccctgtt ttccccccct tagagtgaat 180

ttgaaaaccc tttcgcccgg aaggggaccg accgagccca gcgattcatg gagcgaggaa 240

agcgggaaga gcgcccaata cccaaagccgc ctctcgccgg cgcggtgtgc gattcattaa 300

tacagctgcc acgacaggtt tcccgactgg aaagcggtca gtgagcgcaa cacaattaat 360

gtgagtttagc tcactcatta ggcacccag gctttacact ttatgcttcc ggctcgatgc 420

ttgtgtggaa ttgtgagcgg ataacaattt cacacaggaa acagctatga ccatgattac 480

gtccaaagctc gaaattaacc ctcactaaag ggaacaaaaa ctggagctcc accgcgggtgg 540

cggccgctct agaacttagtg gatccccgg gctccaggaa ttcgccacga ccgggaggac 600

cgaggaggcg ccagactacg ggcga atg gcg acc cgc agc cct ggc gtc gtg 652  
Met Ala Thr Arg Ser Pro Gly Val Val

1

5

att atg gat gat tgg cca ggg tat gac ttg aat tta ttc acg tac cca 700  
Ile Met Asp Asp Trp Pro Gly Tyr Asp Leu Asn Leu Phe Thr Tyr Pro

10

15

20

25

|   |      |
|---|------|
| cag cac tat tat gga gac ttg gag tat gtc ctc atc cct cat ggt atc<br>Gln His Tyr Tyr Gly Asp Leu Glu Tyr Val Leu Ile Pro His Gly Ile<br>30 35 40        | 748  |
| att gtg gac aga att gag cgg ctg gcc aag gat att atg aaa gac ata<br>Ile Val Asp Arg Ile Glu Arg Leu Ala Lys Asp Ile Met Lys Asp Ile<br>45 50 55        | 796  |
| gga tat agt gac atc atg gtc ctg tgt gtg ctt aaa ggg ggg tac aaa<br>Gly Tyr Ser Asp Ile Met Val Leu Cys Val Leu Lys Gly Gly Tyr Lys<br>60 65 70        | 844  |
| tcc tgt gct gat ctc gta gaa cac ctt aag aac atc agc cga aat tca<br>Phe Cys Ala Asp Leu Val Glu His Leu Lys Asn Ile Ser Arg Asn Ser<br>75 80 85        | 892  |
| gat cgg ttt gtc tca atg aag gtt gat ttc atc aga cta aaa agt tac<br>Asp Arg Phe Val Ser Met Lys Val Asp Phe Ile Arg Leu Lys Ser Tyr<br>90 95 100 105   | 940  |
| agg aat gac cag tcc atg ggt gag atg cag ata atc gga ggc ggt gat<br>Arg Asn Asp Gln Ser Met Gly Glu Met Gln Ile Ile Gly Gly Asp<br>110 115 120         | 988  |
| ctt tca acg ctg gct gga aag aat ttt ctc att gtt gag gat gtt gtc<br>Leu Ser Thr Leu Ala Gly Lys Asn Phe Leu Ile Val Glu Asp Val Val<br>125 130 135     | 1036 |
| gga act ggg agg acc atg aaa gca cta ctc agc aat ata gag aaa tac<br>Gly Thr Gly Arg Thr Met Lys Ala Leu Leu Ser Asn Ile Glu Lys Tyr<br>140 145 150     | 1084 |
| aag ccc aac atg att aag gta gcc agt ttg ttg gtg aag aga aca tcc<br>Lys Pro Asn Met Ile Lys Val Ala Ser Leu Leu Val Lys Arg Thr Ser<br>155 160 165     | 1132 |
| aga agt gac ggc ttt aga cct gac tat gct gga ttt gag att cca cac<br>Arg Ser Asp Gly Phe Arg Pro Asp Tyr Ala Gly Phe Glu Ile Pro His<br>170 175 180 185 | 1180 |
| tta ttt gtg gtg gga tat gcc tta gat tac aat gaa tac ttc aga gat<br>Leu Phe Val Val Gly Tyr Ala Leu Asp Tyr Asn Glu Tyr Phe Arg Asp<br>190 195 200     | 1228 |
| ctg aat cac ata tgc gtc atc aat gag cac ggg taa aggaaaatat<br>Leu Asn His Ile Cys Val Ile Asn Glu His Gly<br>205 210                                  | 1274 |
| cgagtcttaa agacatgaat tctcaccact aaaggccccca gataggatca ttttacgcc   | 1334 |
| tgtcttgggg agccagttgc aagttgggcc ccccccggatc ttcatcagga gg  | 1386 |

<210> 2  
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<212> PRT  
<213> Homo sapiens

<400> 2

Met Ala Thr Arg Ser Pro Gly Val Val Ile Met Asp Asp Trp Pro Gly  
1 5 10 15

Tyr Asp Leu Asn Leu Phe Thr Tyr Pro Gln His Tyr Tyr Gly Asp Leu  
20 25 30

Glu Tyr Val Leu Ile Pro His Gly Ile Ile Val Asp Arg Ile Glu Arg  
35 40 45

Leu Ala Lys Asp Ile Met Lys Asp Ile Gly Tyr Ser Asp Ile Met Val  
50 55 60

Leu Cys Val Leu Lys Gly Gly Tyr Lys Phe Cys Ala Asp Leu Val Glu  
65 70 75 80

His Leu Lys Asn Ile Ser Arg Asn Ser Asp Arg Phe Val Ser Met Lys  
85 90 95

Val Asp Phe Ile Arg Leu Lys Ser Tyr Arg Asn Asp Gln Ser Met Gly  
100 105 110

Glu Met Gln Ile Ile Gly Gly Asp Leu Ser Thr Leu Ala Gly Lys  
115 120 125

Asn Phe Leu Ile Val Glu Asp Val Val Gly Thr Gly Arg Thr Met Lys  
130 135 140

Ala Leu Leu Ser Asn Ile Glu Lys Tyr Lys Pro Asn Met Ile Lys Val  
145 150 155 160

Ala Ser Leu Leu Val Lys Arg Thr Ser Arg Ser Asp Gly Phe Arg Pro  
165 170 175

Asp Tyr Ala Gly Phe Glu Ile Pro His Leu Phe Val Val Gly Tyr Ala  
180 185 190

Leu Asp Tyr Asn Glu Tyr Phe Arg Asp Leu Asn His Ile Cys Val Ile  
195 200 205

Asn Glu His Gly  
210

<210> 3  
<211> 37  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for PCR

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37

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<220>  
<223> Primer for PCR

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21

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<211> 24  
<212> DNA  
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<220>  
<223> Primer for PCR

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gatcggagac tacgggcgaa tggc

24

<210> 6  
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<212> DNA  
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<220>  
<223> Primer for PCR

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caggtgcata aatgagcacg ggtaaag

27

<210> 7  
<211> 218  
<212> PRT  
<213> Homo sapiens

<400> 7

Met Ala Thr Arg Ser Pro Gly Val Val Ile Ser Asp Asp Glu Pro Gly  
1 5 10 15

Tyr Asp Leu Asp Leu Phe Cys Ile Pro Asn His Tyr Ala Glu Asp Leu  
20 25 30

Glu Arg Val Phe Ile Pro His Gly Leu Ile Met Asp Arg Thr Glu Arg  
35 40 45

Leu Ala Arg Asp Val Met Lys Glu Met Gly Gly His His Ile Val Ala  
50 55 60

Leu Cys Val Leu Lys Gly Gly Tyr Lys Phe Phe Ala Asp Leu Leu Asp  
65 70 75 80

Tyr Ile Lys Ala Leu Asn Arg Asn Ser Asp Arg Ser Ile Pro Met Thr  
85 90 95

Val Asp Phe Ile Arg Leu Lys Ser Tyr Cys Asn Asp Gln Ser Thr Gly  
100 105 110

Asp Ile Lys Val Ile Gly Gly Asp Asp Leu Ser Thr Leu Thr Gly Lys  
115 120 125

Asn Val Leu Ile Val Glu Asp Ile Ile Asp Thr Gly Lys Thr Met Gln  
130 135 140

Thr Leu Leu Ser Leu Val Arg Gln Tyr Asn Pro Lys Met Val Lys Val  
145 150 155 160

Ala Ser Leu Leu Val Lys Arg Thr Pro Arg Ser Val Gly Tyr Lys Pro  
165 170 175

Asp Phe Val Gly Phe Glu Ile Pro Asp Lys Phe Val Val Gly Tyr Ala  
180 185 190

Leu Asp Tyr Asn Glu Tyr Phe Arg Asp Leu Asn His Val Cys Val Ile  
195 200 205

Ser Glu Thr Gly Lys Ala Lys Tyr Lys Ala  
210 215

<210> 8  
<211> 218  
<212> PRT  
<213> Cricetulus longicaudatus

<400> 8

Met Ala Thr Arg Ser Pro Ser Val Val Ile Ser Asp Asp Glu Pro Gly  
1 5 10 15

Tyr Asp Leu Asp Leu Phe Cys Ile Pro Asn His Tyr Val Glu Asp Leu  
20 25 30

Glu Lys Val Phe Ile Pro His Gly Val Ile Met Asp Arg Thr Glu Arg  
35 40 45

Leu Ala Arg Asp Val Met Lys Glu Met Gly Gly His His Ile Val Ala  
50 55 60

Leu Cys Val Leu Lys Gly Gly Tyr Lys Phe Phe Ala Asp Leu Leu Asp  
65 70 75 80

Tyr Ile Lys Ala Leu Asn Arg Asn Ser Asp Arg Ser Ile Pro Met Thr  
85 90 95

Val Asp Phe Ile Arg Leu Lys Ser Tyr Cys Asn Asp Gln Ser Thr Gly  
100 105 110

Asp Ile Lys Val Ile Gly Gly Asp Asp Leu Ser Thr Leu Thr Gly Lys  
115 120 125

Asn Val Leu Ile Val Glu Asp Ile Ile Asp Thr Gly Lys Thr Met Gln  
130 135 140

Thr Leu Leu Ser Leu Val Lys Arg Tyr Asn Pro Lys Met Val Lys Val  
145 150 155 160

Ala Ser Leu Leu Val Lys Arg Thr Ser Arg Ser Val Gly Tyr Arg Pro  
165 170 175

Asp Phe Val Gly Phe Glu Ile Pro Asp Lys Phe Val Val Gly Tyr Ala  
180 185 190

Leu Asp Tyr Asn Glu Tyr Phe Arg Asp Leu Asn His Ile Cys Val Ile  
195 200 205

Ser Glu Thr Gly Lys Ala Lys Tyr Lys Ala  
210 215

<210> 9  
<211> 231  
<212> PRT  
<213> Plasmodium falciparum  
<400> 9

Met Pro Ile Pro Asn Asn Pro Gly Ala Gly Glu Asn Ala Phe Asp Pro  
1 5 10 15

Val Phe Val Lys Asp Asp Asp Gly Tyr Asp Leu Asp Ser Phe Met Ile  
20 25 30

Pro Ala His Tyr Lys Lys Tyr Leu Thr Lys Val Leu Val Pro Asn Gly  
35 40 45

Val Ile Lys Asn Arg Ile Glu Lys Leu Ala Tyr Asp Ile Lys Lys Val  
50 55 60

Tyr Asn Asn Glu Glu Phe His Ile Leu Cys Leu Leu Lys Gly Ser Arg  
65 70 75 80

Gly Phe Phe Thr Ala Leu Leu Lys His Leu Ser Arg Ile His Asn Tyr  
85 90 95

Ser Ala Val Glu Met Ser Lys Pro Leu Phe Gly Glu His Tyr Val Arg  
100 105 110

Val Lys Ser Tyr Cys Asn Asp Gln Ser Thr Gly Thr Leu Glu Ile Val  
115 120 125

Ser Glu Asp Leu Ser Cys Leu Lys Gly Lys His Val Leu Ile Val Glu  
130 135 140

Asp Ile Ile Asp Thr Gly Lys Thr Leu Val Lys Phe Cys Glu Tyr Leu  
145 150 155 160

Lys Lys Phe Glu Ile Lys Thr Val Ala Ile Ala Cys Leu Phe Ile Lys  
165 170 175

Arg Thr Pro Leu Trp Asn Gly Phe Lys Ala Asp Phe Val Gly Phe Ser  
180 185 190

Ile Pro Asp His Phe Val Val Gly Tyr Ser Leu Asp Tyr Asn Glu Ile  
195 200 205

Phe Arg Asp Leu Asp His Cys Cys Leu Val Asn Asp Glu Gly Lys Lys  
210 215 220

Lys Tyr Lys Ala Thr Ser Leu  
225 230

<210> 10  
<211> 210  
<212> PRT  
<213> Trypanosoma brucei

<400> 10

Met Glu Pro Ala Cys Lys Tyr Asp Phe Ala Thr Ser Val Leu Phe Thr  
1 5 10 15

Glu Ala Glu Leu His Thr Arg Met Arg Gly Val Ala Gln Arg Ile Ala  
20 25 30

Asp Asp Tyr Ser Asn Cys Asn Leu Lys Pro Leu Glu Asn Pro Leu Val  
35 40 45

Ile Val Ser Val Leu Lys Gly Ser Phe Val Phe Thr Ala Asp Met Val  
50 55 60

Arg Ile Leu Gly Asp Phe Gly Val Pro Thr Arg Val Glu Phe Leu Arg  
65 70 75 80

Ala Ser Ser Tyr Gly His Asp Thr Lys Ser Cys Gly Arg Val Asp Val  
85 90 95

Lys Ala Asp Gly Leu Cys Asp Ile Arg Gly Lys His Val Leu Val Leu  
100 105 110

Glu Asp Ile Leu Asp Thr Ala Leu Thr Leu Arg Glu Val Val Asp Ser  
115 120 125

Leu Lys Lys Ser Glu Pro Ala Ser Ile Lys Thr Leu Val Ala Ile Asp  
130 135 140

Lys Pro Gly Gly Arg Lys Ile Pro Phe Thr Ala Glu Tyr Val Val Ala  
145 150 155 160

Asp Val Pro Asn Val Phe Val Val Gly Tyr Gly Leu Asp Tyr Asp Gln  
165 170 175

Ser Tyr Arg Glu Val Arg Asp Val Val Ile Leu Lys Pro Ser Val Tyr  
180 185 190

Glu Thr Trp Gly Lys Glu Leu Glu Arg Arg Lys Ala Ala Gly Glu Ala  
195 200 205

Lys Arg  
210

<210> 11  
<211> 5  
<212> PRT  
<213> Homo sapiens

<400> 11

Arg Lys Ile Ser Ser  
1 5